

**Amendments to the Specification:**

Please amend the paragraph beginning on page 4, line 5 as follows:

Where, ~~the  $\phi_i$  ( $i=1, \dots, n$ ) define the poles, and the  $\phi_j$  ( $j=1, \dots, m$ ) define the zeros.~~  $\phi_i$  and  $\phi_j$  are the parameters of the model.  $a_t$  is a random variable with mean zero and variance  $\sigma_a^2$ ,  $a_t \sim \text{NID}(0, \sigma_a^2)$ .  $\text{NID}(0, \sigma_a^2)$  denotes Normally Independent Distributions with mean value 0 and standard deviation of  $\sigma_a$ . Since  $\text{AR}(p)$  models are good approximations to the  $\text{ARMA}(n,m)$  models when  $p(i=1,2 \dots)$  is properly selected (Reference 2), and building an  $\text{AR}(p)$  model is much easier than building an  $\text{ARMA}(n,m)$  model, in practical application,  $\text{AR}(p)$  models are often used. An  $\text{AR}(p)$  model can be written as follows: